Before the
Federal Communications Commission
Washington, D.C. 20554

CC Docket No. 93-116

In the Matter of

Amendment of Part 22 of the Commission's Rules Pertaining to Power Limits for Paging Stations Operating in the 931 MHz Band in the Public Land Mobile Service

In Re

Skytel Corporation — MSD 92-19
American Paging Inc.

For waiver of Sections 22.505(c)(2), 22.506(e) and 22.506(f)(2) to operate transmitters at higher power

NOTICE OF PROPOSED RULE MAKING AND ORDER GRANTING PETITION FOR WAIVER

Adopted: April 9, 1993; Released: April 23, 1993

Comments Due: June 17, 1993
Reply Comments Due: July 2, 1993

By the Commission:

I. INTRODUCTION

1. This Notice of Proposed Rule Making seeks to reexamine the Public Land Mobile Service (PLMS) rules regarding effective radiated power (ERP) for facilities authorized in the 931 MHz band. In addition, we are granting a rule waiver to Skytel Corporation, during the pendency of this rule making, to allow it to operate on frequency 931.4375 MHz at a higher ERP.[1]

II. BACKGROUND

2. The PLMS rules were revised several years ago, to permit higher ERP for facilities authorized to operate in this service. *See Height and Power Increases in the Public Mobile Service,* 4 FCC Rcd 5303 (1989), *modified* 5 FCC Rcd 4604 (1990). The maximum permissible power for transmitters operating in the 931 MHz band was increased to 3500 watts ERP. Any transmitter on the nationwide network paging frequencies[2] may be operated at 3500 watts ERP regardless of whether the licensee has constructed any co-channel transmitters in the vicinity. However, paging transmitters on the other 931 MHz frequencies may be operated with 3500 watts ERP only when their interference area is totally encompassed by the composite interfering contour of existing co-channel transmitters of the same licensee. Otherwise, such transmitters are limited to a maximum ERP of 1000 watts. Therefore, a carrier who wishes to operate a 3500 watt paging transmitter on a frequency in the 931 MHz band, other than the nationwide network frequencies, must first apply, receive authorization for, and construct several 1000 watt transmitters covering the same area.

III. DISCUSSION

3. Since the previous rule making, we have authorized numerous 931 MHz band paging facilities in all major metropolitan areas. There are currently about 10,700 transmitters licensed in the 931 MHz band, excluding nationwide network transmitters. Although 931 MHz paging remains the fastest growing segment of the Public Land Mobile Service, we believe that much of the early "pent-up" demand for new paging systems has been satisfied, and that the current licensing activity consists in large part of applications for expansion of existing systems. This represents a maturing of this industry. Thus, applicants wish to design their systems with fewer transmitters of higher power and the current requirement of surrounding transmitters is outdated. In view of these changed conditions, we believe that the concerns which led to some of the more restrictive provisions in our current power rules may no longer be applicable and is unnecessary to protect against interference. Therefore, a further examination of these rules is warranted.

4. As stated above, we allow transmitters operating on nationwide network paging frequencies to be operated at maximum ERP when these transmitters are initially established. No co-channel interference is possible, because each licensee is exclusively assigned a frequency throughout the nation. *Height and Power Increases,* 5 FCC Rcd at 4608. Operation at 3500 watts ERP has proven to be a feasible and cost effective way for nationwide paging licensees to rapidly expand coverage. Higher power is also beneficial in providing better building penetration, and, in some cases, overcoming man-made noise.

5. In the previous proceeding, however, we declined to allow 3500 watt operation on the other 931 MHz frequencies except where the transmitter involved is com-

[1] This paging frequency augments Skytel's nationwide paging network on frequency 931.9375 MHz.

[2] Three frequencies (931.8875, 931.9125 and 931.9375 MHz) are reserved for use by nationwide network paging operators. *See Allocation of Spectrum in the 928-941 MHz Band,* 89 FCC 2d 1337 (1982), *recon.,* 92 FCC 2d 631 (1982), *recon. (Part 2),* 93 FCC 2d 908 (1983), *aff'd sub nom., NARUC v. FCC,* No. 83-1485 (D.C. Cir. Jan.17, 1984)(mem.), *Third Report and Order,* 97 FCC 2d 900 (1984), *recon.,* 57 RR 2d 1416 (1985). Thirty-seven other frequencies were made available for regional and local one-way paging service. *Id.*

pletely surrounded by other transmitters of the same licensee, which operate at 1000 watts. *Id.* at 4608-12. We allowed 3500 watt operation only for "internal" transmitters located completely within existing systems because the surrounding transmitters ensure that no co-channel station of another licensee is close enough to receive interference from, or cause interference to, the higher power transmitter.[3] However, we also adopted geographical distance separation requirements for the higher power transmitters and all stations operating on the 931 MHz band.[4] *Id.*

6. We tentatively conclude that we may now allow 3500 watt operation of all stations in the 931 MHz frequency band without requiring existing surrounding transmitters. We believe that this change would be in the public interest since it will afford the benefits of higher power operation without unduly increasing the risks of interference since the potential for interference is not increased with the operation of fewer transmitters at higher power. In addition, increased power limits will allow for greater flexibility for these paging systems since they could use fewer transmitters to cover the same geographic area with the concomitant result in efficiencies of scale, reduction in costs, and resulting benefits for consumers.

7. Accordingly, we propose to allow all stations in the 931 MHz band to be initially operated with any ERP up to a maximum of 3500 watts. We propose to eliminate the height-power limits contained in Section 22.505(b) of the Commission's Rules, 47 CFR § 22.505(b). However, we will continue to require that carriers maintain the geographic separation criteria for co-channel stations. *See* Section 22.503(d), 47 CFR § 22.503(d). Stations in this band will continue to be classified in accordance with Section 22.502(c), 47 CFR § 22.502(c), which classifies stations according to antenna height above average terrain and maximum ERP.[5]

8. Consequently, we propose to remove sections 22.505(b), 47 CFR § 22.505(b); 22.505(c)(2), 47 CFR § 22.505(c)(2); and 22.506(f)(2), 47 CFR § 22.506(f)(2). We also propose to revise Section 22.506(e), 47 CFR § 22.506(e). We will continue to allow additional transmitters to be established within existing contours in accordance with Section 22.117(b), 47 C.F.R. §22.117(b).

9. We seek comment on these proposals, including the potential for adjacent channel interference resulting from these power increases. Furthermore, we seek comment on whether the separation distances in our rules are adequate to protect future and existing stations from interference. This would include the co-channel interference potential to Canada and Mexico. Nevertheless, we tentatively conclude that existing coordination procedures[6] will ensure that increases in power do not result in harmful interference to licensees in neighboring countries. However, because increased power may require modifications of our current coordination procedures between Canada and Mexico, any changes to these procedures will be specified at a later date.

IV. HEIGHT-POWER WAIVER REQUESTS

A. Background

10. Skytel Corporation (Skytel) requests a waiver of Sections 22.505(c)(2), 22.506(e), and 22.506(f)(2) of the Rules, 47 CFR §§ 22.505(c)(2), 22.506(e), 22.506(f)(2), to operate transmitters on frequency 931.4375 MHz at 3500 watts ERP, without first constructing facilities limited to 1000 watts ERP. *See Common Carrier Public Mobile Services Information,* Public Notice, Report No. 21324 (Jan. 8, 1992).[7] American Paging Inc., (American) supports Skytel and requests a waiver of the same rule sections, to operate transmitters on frequency 931.4875 MHz at 3500 watts ERP in Florida and several other states (Georgia, Alabama, Mississippi, and Louisiana).

11. Skytel seeks a waiver of the rules in order to integrate its paging facilities on 931.4375 MHz, which is not a nationwide network paging frequency, with the facilities on its nationwide network paging frequency, 931.9375 MHz. Skytel operates paging transmitters on 931.4375 MHz across much of the nation at the same sites it operates nationwide network facilities on frequency 931.9375 MHz. The transmitters on the nationwide network paging frequency can be operated at 3500 watts ERP. However, the transmitters on 931.4375 MHz cannot exceed 1000 watts, unless Skytel first builds numerous other transmitters surrounding them. Skytel intends to fully integrate its nationwide paging network using both frequencies. In order to do this, Skytel argues that service must be provided on both frequencies over the same geographic area, which can best be accomplished by operating transmitters at the same locations and power levels. In addition, Skytel claims that grant of the waiver will increase the scope of services available to nationwide paging subscribers and possibly increase the number of subscribers. Furthermore, Skytel maintains that grant of the waiver will reduce the number of transmitter sites for the system.

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[3] In the previous rule making we did not adopt a proposed method to determine the co-channel interference potential of 3500 watts transmitters because we concluded certain deficiencies would not make the method workable with our automated system for the assignment of 931 MHz paging channels. At that time, our computer program for paging frequency assignment was coded on the assumption that all transmitters of different applicants must be separated by at least 70 miles. Since then, this program has been extensively updated to take into account all of the separation distances in the rules. The current geographic separation distances range from 70-171 miles depending on the station classification. *See* Section 22.503(d).

[4] Although we are concerned with intermodulation interference, our experience thus far, with 931 MHz nationwide paging networks operating transmitters at 3500 watts, indicates that this problem has not been widespread.

[5] Additionally, we also tentatively find it in the public interest to continue to maintain the reliable service area and interference area parameters established in the rules. *See* Section 22.504(b)(2), 47 C.F.R. § 22.504(b)(2).

[6] For instance we have an agency-to-agency understanding between the Federal Communications Commission and the Canadian Department of Communications for sharing arrangements in portions of the 929-932 MHz band. *See generally Waiver of Section 22.117(b) of the Rules,* DA 92-1507 (Com. Car. Bur. Nov. 13, 1992). *See also* Section 1.955 of the Rules, 47 C.F.R. § 1.955; *Amendment of Parts 21, 22, 23 and 25 of the Rules to Require Reporting of Station Frequency and Technical Parameters for Registration by the Commission with the International Frequency Registration Board,* 7 FCC Rcd 5066 (1992). We have bilateral telecommunications agreements with Mexico. *See generally U.S. and Mexico Sign Major Bilateral Telecommunications Agreements in Mexico City,* Public Notice No. 24390, released Aug. 12, 1992.

[7] Paging Plus, Inc., initially opposed Skytel's request but withdrew its opposition on May 11, 1992.

12. American operates a satellite-linked network of over 100 base stations to provide regional paging service on 931.4875 MHz in Florida and contiguous states. It is authorized to use this frequency in Florida, parts of Georgia, Alabama, Mississippi, and Louisiana. American requests a waiver of the above cited rules, to operate its regional system at 3500 watts ERP. According to American, this will enable the company to provide a more cost-effective and competitive service offering to the public. American also claims that its waiver is needed to create competitive parity, if we grant Skytel's request. American maintains that a grant to Skytel and not to American would be irrational, citing *Northeast Cellular Telephone Company,* 897 F.2d 1164 (D.C. Cir. 1990).

B. Discussion

13. Section 22.19 of the Commission's Rules establishes the requirements for waiver requests. An applicant must demonstrate: (a) that the underlying purpose of the rule will not be served in the absence of a waiver, and that grant of the waiver is in the public interest; or (b) that the unique facts and circumstances of a particular case render application of the rule inequitable or contrary to the public interest and that there is no reasonable alternative. 47 CFR § 22.19. *See WAIT Radio v. FCC,* 418 F.2d 1153 (D.C. Cir. 1969).

14. Skytel has met the requirements of Section 22.19 of the Rules under both alternatives. We recently stated that Skytel (a subsidiary of Mobile Telecommunication Technologies Corp.) could use frequency 931.4375 MHz to augment its nationwide network. *Mobile Telecommunications Technologies Corp.,* 6 FCC Rcd 1938 (Com. Car. Bur. 1991), *aff'd,* 7 FCC Rcd 4061 (1992). Operation of the 931.4375 MHz channel fully integrated with the nationwide network channel is in the public interest. We agree with Skytel, that this will increase the capacity available for nationwide network paging service. Therefore, a waiver of the rule in this case is in the public interest. Granting the waiver will increase the scope of services available to nationwide network paging subscribers and possibly increase the number of subscribers. In addition, granting the waiver will benefit the public by reducing construction costs, and carrier resources devoted to this service, due to a reduction in the number of transmitter sites necessary for the system, thereby lowering the costs at which the service can be made available to the public. Consequently, grant of the waiver will also reduce environmental and civic concern over sites since the number of transmitters will be diminished. There are no reasonable alternatives to the waiver that could achieve these public interest benefits.

15. Furthermore, the underlying purpose of the rule will not be undermined by granting the instant waiver. Insofar as Skytel is the only carrier that has obtained authorizations to use 931.4375 MHz throughout the nation, it is unique. There are currently no facilities of other carriers operating on 931.4375 MHz in the vicinity of Skytel's transmitters. Therefore, it is highly unlikely that Skytel will cause co-channel interference to any other paging systems by transmitting at an ERP of 3500 watts. Since the underlying purpose of the rule -- the prevention of co-channel interference -- is not undermined by granting Skytel's request, a waiver is appropriate. We also agree with Skytel that channel spacing in the 931 MHz band allocation reduces the likelihood of adjacent channel interference. *See, e.g., Flexible Allocation of Frequencies,* 4 FCC Rcd 1576 (1989), *Flexible Paging II,* 4 FCC Rcd 6415 (1989), *recon. (Part I),* 5 FCC Rcd 6199 (1990), *recon. (Part II),* 7 FCC Rcd 4549 (1992).

16. Accordingly, a waiver is warranted under Section 22.19 of the Rules. Therefore, Skytel will be allowed to operate its proposed paging facilities on 931.4375 MHz at any ERP up to but not exceeding 3500 watts, provided that the distance separation criteria of Section 22.503(d) are met. The waiver is granted on the condition that Skytel must submit FCC Form 401, including a separate Schedule B, for each transmitter where the height-power class is changed. For transmitters where the height-power class is not changed, Skytel must notify the Commission using FCC Form 489, with Schedule B attached. The forms must include the appropriate fees.

17. We will entertain waiver requests to increase power during the pendency of this rule making proceeding, as long as the carrier can satisfy the requirements of Section 22.19 of the Rules and demonstrate the lack of interference to co-channel stations. In addition, the requirements specified in paragraph 16 must be followed. Furthermore, applicants requesting waivers of Sections 22.505(c)(2), 22.506(e) and 22.506(f)(2) must comply with Sections 22.502(c) and 22.504(b)(2). Pursuant to these criteria we conclude that we must deny American's waiver request because it has not demonstrated that it will not cause interference to co-channel stations in proximity to its system.[8] In this connection, American may wish to re-submit its waiver request following the requirements specified here, and in paragraph 16, *supra.*

V. CONCLUSIONS

18. We propose to allow carriers to operate paging transmitters in the 931 MHz band with an ERP not exceeding 3500 watts, but without the current requirement that such transmitters be surrounded by existing co-channel transmitters of the same licensee, consistent with the proposed rule provisions described in this Notice. We believe that these proposed rule changes (*see* Appendix B, *infra)* would promote more effective use of the 931 MHz band. We request comments on the issues and proposals addressed in this

[8] We disagree with American that its circumstances are the same as those of Skytel. Unlike Skytel, American has not shown lack of interference to co-channel stations. American is not a nationwide network operator, and therefore, does not benefit from the policy considerations relating to nationwide operators. For instance, Skytel can use frequency 931.4375 to augment its nationwide service. Skytel has authority to provide paging service on frequency 931.4375 MHz in a substantial number of cities. Skytel is the only carrier that has obtained authorizations to use 931.4375 MHz throughout the nation. Contrary to American's arguments, Skytel's case is distinguishable from *Northeast Cellular Telephone Co.,* 897 F.2d 1164 (D.C. Cir. 1990) (the court held that the agency failed to articulate any standard for granting a waiver of the financial qualifications requirements) since Skytel's unique circumstances, as they have been described in this Order, render application of the rule contrary to the public interest. Moreover, these factors which favor granting Skytel's waiver, will not preclude us from acting on waivers of other parties, as long as they can demonstrate they will not cause interference to co-channel stations in proximity to their systems.

Notice. We also find it in the public interest to waive our rules to allow Skytel to operate on 931.4375 MHz, which augments its nationwide operations, at higher ERP.

VI. ORDERING CLAUSES

19. Accordingly, IT IS ORDERED THAT pursuant to Section 4(i) and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), this Notice of Proposed Rule Making IS ISSUED.

20. IT IS FURTHER ORDERED THAT the Secretary shall cause a copy of this Notice to be sent to the Chief Counsel for Advocacy of the Small Business Administration.

21. IT IS FURTHER ORDERED THAT the waiver petition filed by Skytel Corporation IS GRANTED to the extent described herein and in paragraph 16, *supra*. Skytel Corporation can operate frequency 931.4375 MHz in accordance with Sections 22.502(c), 22.503(d), and 22.504(b)(2). We hereby waive Sections 22.505(c)(2), 22.506(e), and 22.506(f)(2) of the Commission's Rules for such purpose.

22. IT IS FURTHER ORDERED THAT the waiver petition filed by American Paging Inc. IS DENIED.

23. For further information contact Carmen A.C. Borkowski, at (202) 632-6450, Mobile Services Division, Common Carrier Bureau.

FEDERAL COMMUNICATIONS COMMISSION

Donna R. Searcy
Secretary

APPENDIX A

PROCEDURAL MATTERS

Ex Parte Rules - Non-Restricted Proceeding

This is a non-restricted notice and comment rule making proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, as long as they are disclosed as provided in the Commission's Rules. *See generally* 47 CFR §§ 1.1202, 1.1203, and 1.1206(a).

Comment Dates

Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments on or before **June 17, 1993** and reply comments on or before **July 2, 1993** . To file formally in this proceeding, you must file an original and four copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus nine copies. You should send comments and reply comments to Office of the Secretary, Federal Communications Commission, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Reference Center of the Federal Communications Commission, 1919 M St., N.W., Washington, D.C. 20554.

Initial Regulatory Flexibility Analysis

Reasons for Action

This rule making proceeding is initiated to obtain comment regarding changes in the power limit rules for Public Land Mobile paging stations operated in the 931 MHz band.

Objectives

The proposed rules will enhance the efficiency of operations because fewer transmitters would be needed to cover the same geographic area. In addition, building penetration will be increased.

Legal Basis

The proposed action is authorized under sections 4(i) and 303(r) of the Communications Act of 1934, 47 U.S.C. §§ 154(i), 303(r).

Reporting, Recordkeeping and Other Compliance Requirements

None.

Federal Rules Which Overlap, Duplicate or Conflict With These Rules

None.

Description, Potential Impact, and Number of Small Entities Involved

A rule change in this proceeding would benefit providers of paging services in the 931 MHz frequency band, by reducing costs. A number of these providers are small entities.

Any Significant Alternatives Minimizing the Impact on Small Entities Consistent with the Stated Objectives

We have determined no specific alternatives that would allow for high power operation of paging stations in the 931 MHz frequency band.

APPENDIX B

Proposed Rules

Title 47 of the Code of Federal Regulations, Part 22, is amended as follows:

Part 22 - Public mobile service

1. The authority citation for Part 22 continues to read as follows:

Authority: Sections 4 and 303 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154 and 303.

2. Section 22.505 is amended by removing and reserving paragraphs (b) (including table) and (c)(2):

Section 22.505 Antenna height-power limit.

* * * * *

(b) [Reserved]

(c) * * *

(2) [Reserved]

* * * * *

3. Section 22.506 is amended by removing and reserving paragraph (f)(2) and revising paragraph (e) to read as follows:

Section 22.506 Power.

* * * * *

(e) *931-932 MHz Band.* Base stations in the 931-932 MHz band must not exceed 3500 watts effective radiated power.

(f) * * *

(2) [Reserved]

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